ACEC MARYLAND News

SPECIAL AWARDS ISSUE!

Volume XLVIII, Number 5 March-April, 2016

In This Issue...

William Preston Lane, Jr. Memorial (Bay) Bridge Cable Dehumidification Garners Top Award in ACEC/MD Engineering Excellence Awards Competition

The American Council of Engineering Companies/Maryland (ACEC/MD) is pleased **to announce that AECOM received the Grand Award** in the 2016 ACEC/MD Engineering Excellence Awards (EEA) competition for the ***William Preston Lane Jr. Memorial (Bay) Bridge Cable Dehumidification project.*** The thirteen finalists in this prestigious competition were recognized for diverse accomplishments that exemplify today's engineering challenges.

(continued on page 3)

2016 GRAND AWARD AECOM
William Preston Lane Jr. Memorial (Bay) Bridge Cable Dehumidification

visit us on the web! www.acecmd.org

ACEC MARYLAND
AMERICAN COUNCIL OF ENGINEERING COMPANIES/MARYLAND
312 N Charles Street, Suite 200
Baltimore, Maryland 21201
(410) 539-1592
FAX (410) 685-5470
www.acecmd.org

ACEC/MD 2016 Engineering Excellence Awards

(continued from page 1)

GRAND AWARD

AECOM

William Preston Lane Jr. Memorial (Bay) Bridge Cable Dehumidification

The William Preston Lane Jr. Memorial (Bay) Bridge, operated by the Maryland Transportation Authority (MDTA), consists of a dual-span crossing rising 186 feet over the Chesapeake Bay. The eastbound bridge opened to traffic in 1952, and the westbound bridge opened in 1973. The centerpieces of these bridges are the two 1,600-foot-long parallel main suspension spans. Suspension towers on the eastbound span rise to 347 feet, while the westbound span's towers soar to 375 feet; both are supported by 13-inch diameter cables. With an annual traffic volume approaching 26 million cars, these vital bridges connect the ocean destinations on Maryland's Eastern Shore with the urban centers of Baltimore, Annapolis and Washington, D.C.

When inspections revealed that the cable corrosion protection systems were not adequate—similar to findings on cables of other suspension bridges worldwide—MDTA turned to AECOM, whose suspension bridge team is recognized globally as leaders in the field of cable dehumidification. AECOM designed and supervised the dehumidification installation of a system that injects dry air into the bridge's main cables to remove built-up moisture and maintain a dry, non-corrosive environment. Web-based controls record key data, such as relative humidity and air flow, and allow MDTA staff to remotely monitor the system's effectiveness. All work necessary to seal the main cables with a robust, air-tight and weather-resistant coating was safely completed while the bridge remained open to traffic. The Bay Bridge received the first application of this cable dehumidification technology in North America, allowing this majestic structure to achieve a prolonged service life. This successful outcome of this project is changing the way bridge owners in the United States and beyond maintain suspension bridge cables.

OUTSTANDING PROJECT AWARDS

WHITMAN, REQUARDT & ASSOCIATES

Ballenger-McKinney Wastewater Treatment Plant

The Ballenger-McKinney Enhanced Nutrient Removal (ENR) Wastewater Treatment Plant Expansion project in Frederick County, Maryland was recently placed into operation. The completion of the $105 million project was the culmination of nearly ten years of planning, design and construction involving a capacity expansion of the existing wastewater treatment plant to 15 million gallons per day (MGD) while also upgrading the plant to achieve ENR effluent levels of total nitrogen and total phosphorus under the state of Maryland's Chesapeake Bay Restoration Act.

Whitman, Requardt & Associates *Ballenger-McKinney Wastewater Treatment Plant*

The project need originated during the late 1980's when the Maryland Department of the Environment (MDE) stipulated to Frederick County and the city of Frederick that an extended section of the Monocacy River had reached its assimilative capacity for treated wastewater effluent, and an alternative discharge location would be required for future wastewater discharges in excess of those currently allocated. To meet the future needs of the rapidly growing Frederick area, the Ballenger-McKinney WWTP would be constructed with the effluent pumped to the Potomac River via an effluent outfall pipeline covering several miles.

A collaborative planning study for the new Ballenger-McKinney WWTP, prepared by Whitman, Requardt and Associates, LLP (WRA) in association with CH2M HILL, led to the selection of membrane bioreactor (MBR) technology as the core treatment process, making Ballenger-McKinney the first major wastewater treatment plant in Maryland to implement this technology. The extremely high quality effluent from the MBR process, compared to conventional treatment processes, allowed for higher flows to be discharged to the Monocacy River, thereby eliminating the need for the Potomac River discharge and associated costs.

The treated effluent from the Ballenger-McKinney ENR Wastewater Treatment Plant is meeting the state of Maryland's requirements for nitrogen and phosphorus using state-of-the-art MBR treatment technology. Ballenger-McKinney is now one of the most advanced wastewater treatment plants in Maryland.

SABRA, WANG & ASSOCIATES INC.

Downtown Signal Optimization

In May 2015, the District of Columbia completed a four year, $2.15 million project to upgrade controller firmware and coordinate and optimize traffic signal timings at 654 intersections in the Downtown Core of the District. This project was undertaken with the primary goals of making DC traffic signals safer and friendlier for pedestrians; improving bus running times and reducing bus delays; improving overall traffic flow; and

(continued on next page)

ACEC/MD 2016 Engineering Excellence Awards

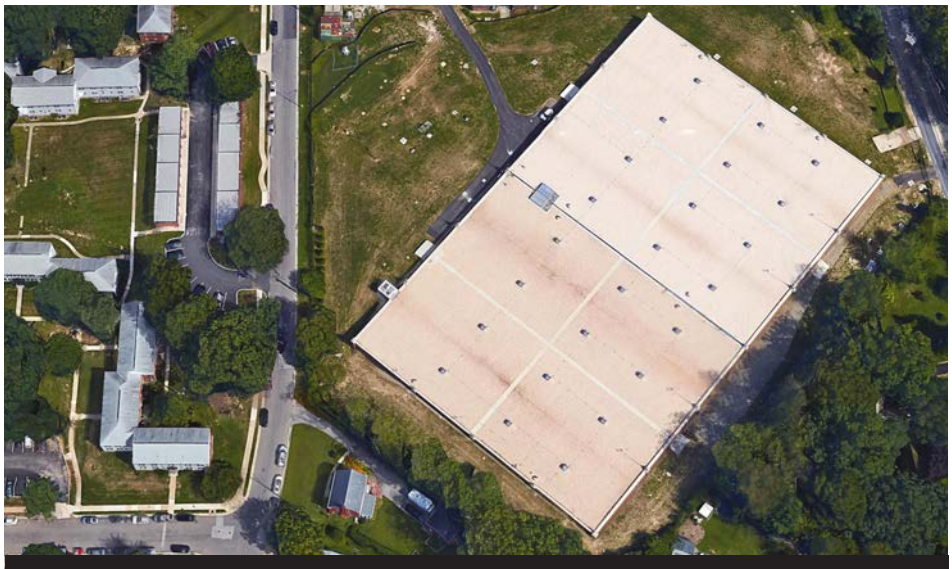
(continued from previous page)

Sabra, Wang & Associates Inc. ***Downtown Signal Optimization***

reducing vehicular traffic emissions. The previous signal optimization project was completed in 2004-2005 without the use of traffic volume data. In the intervening years, travel patterns and traffic volumes changed significantly due to expansive growth and economic development. The final results surpassed all expectations with a 23% reduction in travel delays, 13% fuel savings, and a reduction of nearly 240,000 kilograms of harmful emissions in the first year, making the Downtown core safer and friendlier for all motorists, transit passengers, cyclists and pedestrians that use the District's roadways every day. Benefits analyses showed that the project paid for itself within six days, and resulted in an annual benefit of $12 Million in fuel savings alone. The benefit-to-cost ratio was 40:1.

This project was performed in two primary phases. The work in Phase 1 was a critical first step in developing a solid foundation to enable the more extensive signal timing changes in Phase 2. It consisted primarily of upgrading the vintage 1980s controller software to the latest version and updating key safety-sensitive signal timing parameters to meet the standards of the 2009 Federal MUTCD.

Signal timing optimization was performed in Phase 2 using a complex computer model that was calibrated to local driver behavior, the District's roadway network, and local traffic flows. The project successfully improved pedestrian safety, while also reducing vehicle and bus travel time, delays and emissions. The project not only resulted in a more efficient transportation system, but did so in an incredibly cost-effective manner – less than $3,500 per intersection.



Gannett Fleming Inc. ***Towson Finished Water Reservoir***

GANNETT FLEMING INC.

Towson Finished Water Reservoir

Since 1927, the Towson Finished Water Reservoir has been an integral part of the Baltimore, Maryland potable water system. More than 80 years later, the reservoir was showing its age in trying to meet the needs of 100,000 customers. This important piece of infrastructure was leaking into the basements of nearby homes.

It also was woefully inefficient; only 9 million gallons of the 16 million gallon facility were usable because the entrainment of air affected pumping. Further, the reservoir did not comply with a recent U.S. EPA rule requiring all open potable reservoirs to be covered or treated. Failure to comply by the deadline would result in a staggering fine of $37,500 per day.

A vision of the city of Baltimore, Department of Public Works, a massive rehabilitation transformed the Towson Finished Water Reservoir into a shining example of modern engineering excellence. In the face of tremendous project challenges, including extreme restrictions of space and the mandatory continuity of water supply during construction, Gannett Fleming delivered a project that improved water quality and reliability, reduced the likelihood of a reservoir breach, nearly doubled the reservoir's useable volume, resolved seepage concerns, and fully satisfied the EPA's requirements. The reservoir was seamlessly integrated into Baltimore's water supply system and will meet drinking water demand through 2025.

(continued on next page)

ACEC/MD 2016 Engineering Excellence Awards

(continued from previous page)

KCI Technologies Inc. ***PB-85 Maryland Merger Solar Commitment***

HONOR AWARDS

KCI TECHNOLOGIES INC.

Maryland Merger Solar Commitment

In the Baltimore metropolitan area, a series of urban pocket solar arrays is coming online to help generate clean energy for the state of Maryland. The design of 20 individual sites, most producing between 189 to more than 2,300 kilowatts of power, was completed as part of Constellation Energy's 2012 merger with Exelon. KCI supported the solar initiative by providing surveys and structural, electrical, geotechnical, civil and utilities engineering for roof, open ground and parking lot installations.

A unique design approach was employed to accommodate each facility type and to maximize the efficiency of the photovoltaic panels. Ground and parking lot systems required that utilities be located, topographic surveys conducted, and electrical investigations completed to identify electrical connection points, confirm orientation of the arrays for peak output, and develop drawings to properly outline construction and connection to the utility grid. Geotechnical engineers analyzed subsurface conditions to determine how much heat the soil could absorb, which affects cable sizing, in addition to its corrosion potential in relation to selected foundation materials. Layout of elevated parking structures also had to accommodate existing parking spaces and islands, as well as blocked safety and security lighting. At roof-mounted locations, Light Detection and Ranging (LiDAR) surveys precisely located elevated features that could affect panel layout or produce shading. Structural analyses determined the roof's capacity to support the additional weight of the racking system and panel ballasts, since the panels were not attached to the roof, but instead weighted in place.

The largest site, a 5.1 megawatt project involving parking lot arrays at three of the Community College of Baltimore County's campuses, is expected to generate 6.5 million kilowatt hours of power per year, supplying nearly 27 percent of the institution's energy demand.

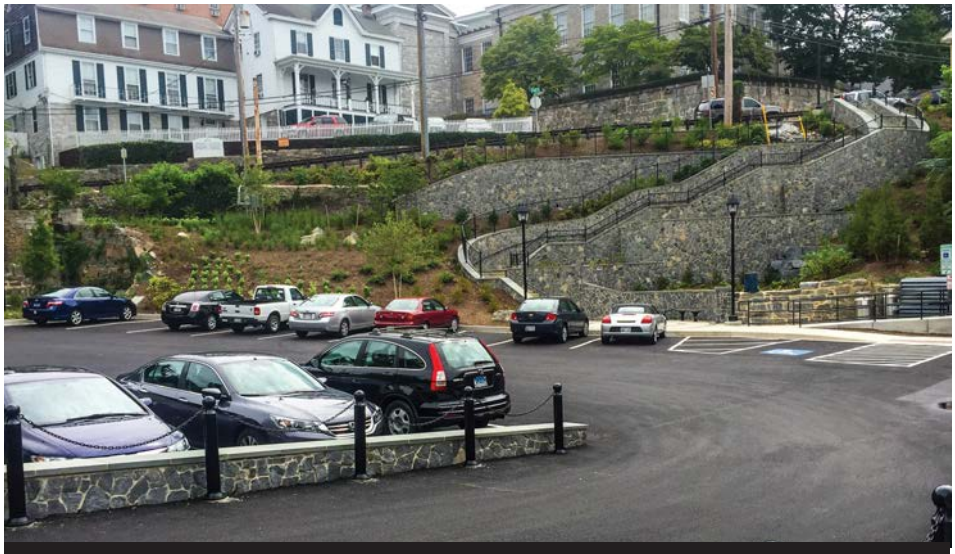
MCCORMICK TAYLOR INC.

Ellicott City Lot E Staircase Water Quality Project

The McCormick Taylor team provided engineering, design services, and landscape architecture for improvements to Parking Lot E in Historic Ellicott City, Howard County. The project included structural and stormwater management (SWM) analysis and design, development of design plans, obtainment of permits, and construction oversight. The goal of the project was to incorporate pedestrian, parking, and stormwater improvements to the existing parking facility along Main Street to make the historic community more walkable and functional, improve access to surrounding businesses, and provide water quality treatment to impervious surfaces.

Geotechnical investigations were completed to determine a constructible approach to retaining wall designs for the staircase to be built into the existing slope, while maintaining traffic on the roadway above during construction. The design had to address other site complexities including utilities and an irregular bedrock subgrade along the slope. The terraced structure provided opportunities to incorporate three bioretention facilities to treat stormwater runoff, which would be contained within a new staircase from

(continued on next page)



McCormick Taylor Inc. ***Ellicott City Lot E Staircase Water Quality Project***

ACEC/MD 2016 Engineering Excellence Awards

(continued from previous page)

Court Avenue to the parking lot.

In addition to stormwater improvements, parking lot reconfiguration to maximize the number of available spaces, and construction of the staircase, the planting design of Parking Lot E had to be taken into consideration. The plants needed to be native, able to survive both drought and flooding, treat stormwater, and act as functional and aesthetically pleasing soil stabilizers.

This project also required approval from the Historic Commission, obtainment of a site development plan waiver, completion of a plat revision for an additional easement, a building permit, and a grading permit.

McCormick Taylor also worked with Howard County to coordinate with the adjacent homeowners on landscaping preferences and business owners to provide adequate accessibility for their business needs.

PENNONI

High Speed Test Track Control System at the ATEF

The ATEF located at the Aberdeen Testing Center (ATC) at Aberdeen Proving Ground is the first contiguous, flat, sustained high-speed test track on which the Department of Defense (DoD) is able to fully test all current and future vehicles. Until the inception of the 4.5 mile long, 207-foot wide tri-oval track with wide safety runoff areas, there was no way to test the entire fleet of tracked, wheeled and robotic military vehicles at high speeds.

The primary challenge, from the client's perspective, was to determine how to cost-effectively allow access to the airfield and other tenant facilities inside the track, while testing military vehicles at sustained high speeds. The engineers' challenge was to figure out how privately-owned-vehicles could safely cross a test facility equivalent to a 12-lane wide, high-speed expressway for tanks.

Since 2006, Pennoni worked alongside the U.S. Army Corps of Engineers (USACE) and the Army to design the traffic control aspects of the test track. Pennoni gave careful consideration to neighboring facilities and the site's close proximity to Chesapeake Bay, while designing a cost-effective traffic-control system that would provide safe passage to motorists that would meet the ATEF mission goals. The culmination of this collaborative effort was the implementation of the ATEF traffic control system in March 2015.

Coordination between USACE, the Army, contractor and vendors was the key factor to completing this project successfully. This one-of-a-kind traffic control system designed by Pennoni was developed and enhanced to meet the unique parameters of the ATEF and the specific needs of the client.

Pennoni ***High Speed Test Track Control System at the ATEF***

RUMMEL, KLEPPER & KAHL LLP

I-95 Section 100 at the MD 43 Interchange

The I-95/MD 43 Interchange in Baltimore County, involved complete reconstruction of the existing I-95 interchange as part of an overall 8-mile congestion mitigation project to construct four Express Toll Lanes (ETL, managed roadway) on the very heavily traveled I-95 north of Baltimore. This project focuses on the northern end section to reconstruct the MD 43 (White Marsh Boulevard) Interchange, including reconstruction of 1.6 miles of existing eight-lane divided highway to eight General Purpose Lanes (GPL) and four ETLs; realignment and widening of 1.1 miles of MD 43 from four to six lanes through the interchange, requiring replacement of two structurally deficient bridges. The project included interchange ramp realignment and construction of six bridges – three along MD 43, two for the flyover ramps, and replaced and widened the I-95 bridge over Campbell Boulevard; one full traffic signal and two half signals added at ramp connections; several retaining walls; and a noise wall. The original cloverleaf interchange was converted to a folded interchange by adding two flyover ramps and realigning the existing ramps. The existing eight-lane divided highway was reconstructed by adding four ETLs, while maintaining the eight GPLs separated by concrete traffic barriers. This project improved safety by eliminating undesirable weave sections along I-95 and MD 43.

The project incorporated a unique design for the MD 43 ETL exit ramps, including ETL ramps in the MD 43 Bridge median over I-95 at a signalized intersection and the use of mechanically stabilized earth retaining walls to support the ramps. Flyover ramps were designed sufficiently outside the interchange's center so as not to be influenced by ETL ramps profiles or interfere with signage. Since the ETLs connected to MD 43 at a signalized intersection, a third tier of directional ramps were not needed. These design approaches resulted in an aesthetically low level interchange.

This project successfully fulfilled the MDTA's needs and expectations by finishing on time and within budget with key elements contributing to its success, including incorporation of aesthetics in both a pleasing and functional manner.

(continued on next page)

ACEC/MD 2016 Engineering Excellence Awards

(continued from previous page)

Rummel, Klepper & Kahl LLP *I-95 Section 100 at the MD 43 Interchange*

RUMMEL, KLEPPER & KAHL LLP

Rehabilitation of Southwest Diversion Pressure/Gravity Sewer, Phase III

In 2009, the Baltimore City DPW conducted inspections of the Southwest Division Sewer (SWDS) that revealed several areas in need of repair. Containing both Reinforced Concrete Pipe (RCP) and Pre-Stressed Concrete Cylinder Pipe (PCCP), the 78" diameter SWDS starts as a gravity sewer transitioning into a pressure sewer due to the Gwynns Falls subaqueous crossing. Working for several years on this project, RK&K provided planning, analysis, coordination, easement acquisition and design, determining the most effective options to repair this major sanitary conveyance system. Cured-In-Place–Pipe (CIPP) lining was selected for the gravity portions and Carbon Fiber Reinforced Polymer lining (CFRP) for the pressure portions as each could accommodate the necessary repairs with minimal loss to the system's hydraulic capacity.

The choice of replacement methods, materials and processes were unique and innovative. To complete the SWDS rehabilitation, a temporary 152 MGD bypass system was set-up and maintained. The bypass included temporary routing of approximately 5,600 LF of eight 24" diameter HDPE bypass pipes. Sixteen 18" pumps were positioned at the Gwynns Falls trailhead to bypass the SWDS flow. Four additional 8" pumps were used to bypass the 27" Maiden Choice Pressure Sewer, which connects into the SWDS. CIPP and CFRP lining systems provided full structural repairs to the distressed pipelines without relying on the existing structure's strength. The SWDS scope represents the largest continuous CFRP installation completed to date in the United States for an internal repair of a large diameter pipeline.

The in-situ (in-place) rehabilitation of large diameter gravity and pressure pipelines using modern materials such as CIPP liners and CFRP materials demonstrates the ability to effectively repair deteriorated underground infrastructure, limiting long-term surface disturbance if a replacement pipeline had been constructed.

RUMMEL, KLEPPER & KAHL LLP

Replacement of Two Howard Street Arch Bridge Bearings

Constructed in 1938, the Howard Street Arch Bridge consists of two, three-hinge steel tied-arches, spanning 270'-6" and six steel girders for a 979' long structure. Serving approximately 29,000 vehicles per day, the bridge carries five lanes of two-way traffic over I-83, CSXT, MTA Light Rail, Amtrak, the Jones Falls and Falls Road in Baltimore City. The primary focus was to replace two sets of deteriorated original expansion rocker nest bearings for the south arch over I-83/Pier 4. Temporary jacking of the superstructure was required to remove old rocker nests and install devices with minimal impacts.

The RK&K Team performed a detailed inspection, executing non-destructive testing to determine the pin and bearing casting's condition, critical to confirming elements were in good condition and would not be jeopardized by the jacking. Three main engineering challenges required innovation: ***Design a mechanism for lifting/holding the bridge under traffic:*** design of an innovative jacking system (eight 100-ton jacks at each bearing; custom welded steel brackets mechanically connected to the original bearing's top steel casting lower edge with three high strength bars post-tensioned to clamp jacking brackets to the original top casting) lifted both ends of the span over I-83, keeping it raised under traffic load while bearings were removed/replaced. ***Develop compact/durable bearing to be installed in limited space:*** custom, compact high strength manganese bronze bearings were selected over the typical spherical larger bronze bearings with lower strength copper alloys. Retaining the original castings minimized the height the bridge had to be lifted, providing surface for the new bearings. ***Modify the original structure's articulation to be compatible with new bearings:*** the bearing pin allows the arch to rotate. By replacing the existing rocker nest bearings

(continued on next page)

Rummel, Klepper & Kahl LLP *Rehabilitation of Southwest Diversion Pressure/Gravity Sewer, Phase III*

ACEC/MD 2016 Engineering Excellence Awards

(continued from previous page)

Rummel, Klepper & Kahl LLP ***Replacement of Two Howard Street Arch Bridge Bearings***

with new spherical bearings, an additional rotation capability was added, resulting in unpredictable displacement/rotation. A mechanically connected locking bar system was designed to fix the top casting with the arch rib while maintaining the tie's/pin's ability to freely rotate. The bridge was successfully restored on schedule and under the bid, completing construction relatively seamlessly with zero time lost to injury.

WHITNEY BAILEY COX & MAGNANI

Frederick Avenue Bridge over Gwynns Falls and CSX Railroad

Whitney, Bailey, Cox & Magnani (WBCM) designed the replacement of the historical Frederick Avenue Bridge over the environmentally-sensitive Gwynns Falls and CSX railroad in Baltimore, MD to mimic the existing historic bridge that was built in the 1930s and owned by Baltimore City.

The existing bridge was a 220-foot long, reinforced concrete, dual barrel arch with an earth fill above the arches and between the abutments and spandrel walls that supported the existing four-lane roadway, sidewalks, and buried utilities that included the primary gas main for the City.

The replacement bridge is a 228-foot long two-span prestressed concrete beam superstructure supported on a 35-foot high reinforced concrete substructure with drilled shaft foundations. An architectural façade consisting of a precast concrete arch ribs spanning from abutment to pier in each span supports a castin-place concrete arch wall that closely resembles the historical arch design of the existing bridge. The project included: incorporation of aesthetic details for the arch façade and parapets; maintenance of utilities, railroad, and pedestrian traffic; and mitigation of environmental impacts to the Gwynns Falls. Installation of the arch façade without significant disruptions to CSX traffic and Gwynns Falls would not have been possible without the use of the precast arch ribs.

Whitney Bailey Cox & Magnani ***Frederick Avenue Bridge over Gwynns Falls and CSX Railroad***

WBCM designed a 450-foot pedestrian bridge to address the maintenance of pedestrian traffic to a local school and to carry existing utilities during construction. WBCM also provided extensive maintenance of traffic plans, reforestation plans, and an H/H report and scour analysis for Gwynns Fall.

WBCM coordinated with the Maryland Historic Trust, CSX, MDE, BGE, MTA, and local schools, residents, and businesses to accommodate existing site restrictions and activities.

WHITMAN, REQUARDT & ASSOCIATES

Montebello Plant 2 Finished Water Reservoir

The city of Baltimore's Montebello Water Filtration Plants 1 and 2 provide drinking water to the city of Baltimore and to surrounding service areas including Baltimore County and Anne Arundel County. The plants, originally built in the early 1900s, have undergone various upgrades in the years since their construction. The City retained Whitman, Requardt & Associates, LLP (WRA), to assess the condition of the then-open finished water reservoir at Plant 2, and to recommend a cost effective solution to provide covered storage in compliance with the Safe Drinking Water Act Long Term 2 Enhanced Surface Water Treatment Rule.

WRA completed an assessment of the reservoir's condition and an analysis of options to provide covered storage. Due to the deteriorated condition of the open reservoir, and the associated cost of modifications that would be needed to cover it, construction of a new finished water reservoir was the selected alternative. Driven by system hydraulic considerations, the new covered reservoir is located at the same site as the former open reservoir. This necessitated careful consideration of construction sequencing for demolition of the old reservoir, conduits and appurtenances, and construction of the new reservoir and connections to the existing transmission system.

The new reservoir is a cast in place concrete reservoir with precast double tee roof members, designed and constructed to meet ACI 350-06 requirements for environmental engineering concrete structures. Type K cement was specified for the concrete to minimize shrinkage cracks in the walls and slab. The reservoir has a footprint of nearly seven acres, and is divided into two chambers, each of which can be isolated for cleaning and maintenance activities. The "green roof" of the reser-

(continued on page 11)

Member News

- **ATCS, P.L.C.** has relocated their office to:
  2 Hamill Road, Suite 320
  Baltimore, MD 21210
  Phone: 443.205.3213
- **CENTURY ENGINEERING, INC.** was recently awarded Firm of the Year for 2014 from the Baltimore County Soils Conservation District for 2014. In addition, Consultant of the Year went to ***Robert Hurwitz, P.E., LEED AP BD+C***. for work on various projects including Northwest Hospital, Hollins End, Greenspring Quarry and T. Rowe Price.
- **EBA ENGINEERING, INC.** is pleased to announce that ***Charlie Card*** has joined the firm as a Project Manager for Asset Management Services. He brings to the firm nearly 30 years of Asset Management and Regulatory Compliance.
- **DEWBERRY** has promoted ***Michael Rectanus, P.E.*** to associate. He has more than 14 years of technical and project management experience on design-build, open-end highway, and traffic engineering projects.
- **GANNETT FLEMING** welcomes ***Maria "Ree" Miskimon*** as its Mid-Atlantic Region business development manager. With 17 years of experience in the engineering industry, she will work in partnership with the firm's executive leadership to achieve the company's business development and financial goals.
- In a recent merger, **GEORGE, MILES & BUHR, LLC (GMB)** welcomes Stephen M. Adkins Land Surveying, LLC of Laurel, Delaware.
- **LEACH WALLACE ASSOCIATES, INC.** is pleased to announce that the firm is celebrating its 25th Anniversary. The firm has grown from six employees to over 100 employees with three different offices.
- **NAVARRO & WRIGHT CONSULTING ENGINEERS, INC.** recently announced the following:
  - The firm's new materials testing laboratory recently received "AASHTO Accreditation" for Quality Management System, Concrete and Materials testing.
  - ***Landon C. Barlow***, Geotechnical Engineering Specialist and ***Jeremy A. Cook***, Drilling Inspector have joined the firm.
- **PRIME AE GROUP i**s pleased to announce the following new hires:
  - ***Kurt A. Miller, P.E***. has joined the firm as Vice President, Highway Division. He has over 28 years of experience in highway planning, design and construction management.
  - With over 30 years of experience in water resources engineering, environmental planning and permitting, ***Doug Novocin, P.E.*** has joined the firm as Senior Project Manager.
  - ***Jamie Campbell*** has joined the firm as Director of Marketing and Communications. He has over 15 years of experience, including ten years in the A/E industry.

■■■

Schnabel Engineering's William Billiet Selected as the 2015 Young Professional Award Recipient

Annually, in conjunction with our parent organization the American Council of Engineering Companies (ACEC), ACEC/MD presents a Young Professional of the Year Award. This award recognizes the accomplishments of our member firms' young engineers by highlighting their interesting and unique work, and the resulting important impact on society. This year 2015 Young Professional of the Year Award was presented to William A. Billiet of Schnabel Engineering.

A registered Professional Engineer in Maryland and Virginia, Bill Billiet is a Project Engineer at member firm Schnabel Engineering. As indicated by his success on a number of diverse projects, Bill has always been excited about making a positive impact on the community.

As a staff engineer in 2008, Bill managed the subsurface investigation program for the $560M Intercounty Connector Contract B Project. This fast tracked design-build project was finished on time and on budget.

In 2012, Bill travelled to Sub-Saharan Africa to supervise a large subsurface exploration for a future infrastructure facility in a remote jungle, using local residents and only locally available equipment. This multi-million dollar project represented the first time ASTM standards were used in a large-scale civil engineering project in this part of Africa.

On the Dulles Metrorail Project, Bill assumed more responsibly as the Project Geotechnical Engineer for the rail bridges and aerial guide way. Bill designed, managed and analyzed a $2M full scale load testing program, that reduced the size and length of the drilled shafts resulting in significant cost savings and shortened project schedule.

A graduate of the University of Maryland with Bachelors' and Master's Degrees in Civil Engineering, Bill still finds time to give back to the community. He has made STEM presentations to local high school students, participated as a Capstone Program judge, and provided tutoring weekly to at-risk students.

ACEC/MD is proud to recognize the accomplishments of its member firms' young professionals, and very much appreciates their contributions to the profession and society.

■■■

MDTA'S Steve Silva Recipient of the 2016 President's Award

At the president's discretion, the American Council of Engineering Companies/Maryland honors an individual whose actions have greatly contributed to the advancement of the consulting engineering profession and the citizens of Maryland. We are pleased to present the 2016 President's Award to Stephen V. Silva.

A strong supporter of ACEC/MD, Steve Silva recently retired as the Chief Engineer at the Maryland Transit Administration in Baltimore. He is a registered Professional Engineer in Maryland and has a Bachelor of Science degree in Civil Engineering from the University of Lowell. A graduate of SHA's Management Development Program, in his former position Steve was responsible for carrying out the projects within MTA's Capital Program by overseeing the six Divisions within the Office of Engineering & Construction: Facilities Engineering and ADA, Track and Structural Engineering, Systems & Equipment Engineering, Construction, Real Estate, and Quality Assurance/Quality Control. Steve was the Project Director for the high profile Light Rail Double Tracking Project, valued at $210-million, which to date is MTA's largest capital project. Prior to his twenty-year career at MTA, Steve worked in the Bridge Design Division at SHA for twelve years.

■■■

encourage them to take action.

ACEC/MD's ongoing success is driven by our volunteers' actions. The 2016/2017 call for committees will be coming out soon. Please ensure the continued success of this organization by encouraging volunteer participation from your firms on the various committees.

ACEC/MD 28th Annual Conference will be held at the Hyatt Regency Newport Hotel and Spa, Newport Rhode Island June 22-25, 2016. I hope to see many of you there and at other upcoming events.

Have a great Spring!!

Seeking Employment

The following individuals are seeking employment and have a complete resume on file in the ACEC/MD office. Please phone 410-539-1592 if you are interested in obtaining a copy.

1. Individual with a B.S in Civil Engineering with an emphasis in Building and Construction Management, and experience working in the Middle East.
2. Individual with almost 30 years of experience looking for employment as a field project engineer, field project manager or inspector on construction sites.

ACEC/MD 2016 Engineering Excellence Awards

(continued from page 8)

Whitman, Requardt & Associates *Montebello Plant 2 Finished Water Reservoir*

voir consists of a waterproofing membrane, drainage board and soil over the precast members, so that stormwater is largely retained on site. The new Montebello Plant 2 Finished Water Reservoir was placed into service in 2014. The approximate construction cost came in under budget at $43,600,000.

WHITMAN, REQUARDT & ASSOCIATES

26th Street Emergency Repair and Retaining Wall Reconstruction

On April 30, 2014, a century-old, 35' tall stone masonry retaining wall, located between the CSX Transportation (CSXT) railroad tracks and East 26th Street in Baltimore collapsed. The wall, along with one travel lane of East 26th Street, a parking lane and sidewalk, collapsed onto the tracks below, halting rail traffic through a main artery to the Port of Baltimore. It also forced the evacuation of 19 homes in the neighborhood.

As part of an on-call contract with the Baltimore City Department of Transportation, Whitman, Requardt & Associates, LLP (WRA) responded to the emergency within 45 minutes of notification and remained there throughout the night to monitor, assess, and develop an immediate plan of action. WRA worked to oversee procedures for stabilizing the slope and clearing the debris from the CSXT tracks to begin more permanent repairs. Thirty one days following the collapse, the evacuated residents returned to their homes, marking the transition to the long term construction phase for permanent restoration of the retaining wall, utilities, drainage and the street.

The city of Baltimore and WRA held weekly briefings with the community during the first two months of the emergency response to keep all informed of progress, problems, and proposed solutions, and then monthly as construction progressed. Coordination and communication were critical. An accelerated schedule, coupled with the emergency repairs and final designs being done simultaneously, limited work space, complexity of the work sequencing, and the sensitive nature of the project, made it imperative that the owner, design and construction staff discussed the project status weekly to make informed decisions. The retaining wall construction was completed on June 4, 2015.

Whitman, Requardt & Associates *26th Street Emergency Repair and Retaining Wall Reconstruction*

WRA's hands-on approach from the emergency repair through the completion and a commitment by all team members lead to a successful, cost effective project.

■■■

President's Message

by Art Barrett, P.E.

We had a fantastic ACEC/MD Awards Banquet on February 18th, and recognized several very special projects and people. Please join me in congratulating both the participants and their clients for the stellar projects. Each of the projects, and individual awards recognized are listed in this newsletter. A special note of thanks must go out to Angela Perry and the Awards and Recommendations Committee for the tough job of selecting the winning projects from a list of very inspiring nominations.

Let me shift focus from the projects to the ACEC/MD President's Award, which is bestowed at the President's discretion, "to honor an individual whose actions have greatly contributed to the advancement of the consulting engineering profession and the citizens of Maryland." For 2016, I am delighted to have selected Mr. Steve Silva, PE. Steve has been a lifelong employee of MDOT, working at both SHA and MTA, leading projects and serving as the MTA Assistant Deputy Administrator/Chief Engineer leading the MTA Engineering and Construction Divisions.

On the night of the awards, Steve was unable to attend due to health constraints. Two weeks later, Stu Robinson (ACEC/MD Vice President) and I presented Steve with the award at his home. We were both troubled in that we found him confined to a wheelchair in a house that has only stair access. I am extremely proud to say that several members of ACEC/MD firms, as well as past and present SHA and MTA employees, developed plans, obtained permits, solicited funds and provided the Silvas with an ADA accessible ramp. With wind, rain, snow and very dedicated friends, we were able to complete this ramp over a weekend. It is an extremely rewarding experience for all who were able to participate, and gave us a chance to give back to someone who has contributed greatly to our industry. We have received heartfelt thanks from the Silvas, "Yes the ramp is awesome and we love it", and I echo their appreciation to the firms and individuals who helped in many ways.

We are fortunate to have dedicated member firm representatives participating in the Legislative Committee, which continues to monitor, support and oppose legislation that affects the engineering and consulting

community. Their hard work paid off with the passage of the Duty to Defend Legislation (Senate Bill 234/House Bill 871) Bill. This Bill provides that provisions in a contract or an agreement relating to our services that require the firm to defend or pay the costs of defending our clients against liability are against public policy, are void and unenforceable.

We were not as successful with a procurement measure, which was caught up with differences between the House and Senate language. House Bill 195 would have altered existing legislation on provisions that prohibit past state employees participation on State procurements for two year following the issuance of an invitation for bids or a request for proposals. The Senate bill was passed with a 3-year restriction. The legislative session expired prior to reaching concurrence and passing a bill with the same time limitations.

We were also disappointed in the passage of House Bill 1013, Maryland Open Transportation Investment Decision Act of 2016. ACEC/MD opposed this legislation based upon the delays exhibited by similar legislation in Virginia and North Carolina, and because it takes the decision of which major capital projects are placed in the Consolidated Transportation Program out of the hands of transportation officials and places them in a scoring system which can have politically driven tendencies. Processing these projects through the ranking will result in delays to the inclusion in the CTP and of the availability for the public's use of these facilities.

Finally, we are still seeking to eliminate liquidated damages on MBE goals and reporting. We continue to reach out to the Honorable Joan Carter Conway, Senate Education, Health and Environmental Affairs Committee Chair to resolve our concerns, but have not had any success in changing her ideals. Although we have not been successful in eliminating the liquated damages clauses in our contracts, we will continue to try and resolve this issue with alternate means or future legislation.

Thank you to all the member firms and employees who support the legislative processes with donations to the PACs. If you have not done so already, please make a donation to the local CEPAC and have a crab logo on your name tag for an individual contribution or Maryland logo for a firm contribution, and make a donation or buy a ticket for ACEC/MD's raffle benefitting the $1 million national ACEC/PAC and have an American flag added to your name tag. Both of these PACs provide us with a voice at the table when discussing legislation which benefits all ACEC firms.

We have some great news from the City of Baltimore. After 13 years the City Board of Estimates has passed an increase in the overhead and salary caps on City funded contracts. On new contracts the City will accept 150% on overhead, $65/hr. as a maximum rate and $100/hr. inclusive principal rate. These increases are long overdue, and were achieved through the dedication of many on the City of Baltimore Liaison committees over the years. Thank you to all who participated, especially Tony Mawry who closed the deal.

Although the Maryland legislative session has closed for the year, there is still national legislation ACEC is pursuing. On our April 20, 2016 legislative visits, we spoke to our representatives about the following: Sustainable Transportation Investment, which will be the follow-up legislation needed to sustain the Transportation Trust Fund after 5 years of the FAST Act, FAA Reauthorization, HR8 and S2012, which are companion Energy Bills, and our opposition to the proposed overtime rules. Legislative alerts will be issued through email to member representatives as needed. As always, we ask that you distribute them to your employees and

■■■

AMERICAN COUNCIL OF ENGINEERING COMPANIES/MARYLAND
312 N Charles Street, Suite 200
Baltimore, Maryland 21201-4310

POSTMASTER: ADDRESS CORRECTION REQUESTED

ACEC/MD 27th Annual Conference
June 24-26, 2015

Deadline for room reservations – June 1, 2015!

Kingsmill Resort

1010 Kingsmill Road Williamsburg, VA 231085
757-253-1703 ~ 1-800-832-5665
Visit their website - www.kingsmill.com

ACEC/MD's 27th Annual Conference, being held June 24-26, 2015 at the Kingsmill Resort, located in Williamsburg, Virginia, is right around the corner, and you need to get your hotel room reservation today by calling 1-800-832-5665. The cut-off date is June 1st, but when ACEC/MD's room block is gone you will not be able to take advantage of special room rates. For details on the conference, go to ACEC/MD's website (www.acecmd.org).

This year's program will once again provide the right mix of educational opportunities, networking with colleagues and friends in the profession, and time to relax and enjoy the quiet ambience of our destination resort. Our sessions will include a presentation from the Hampton Roads Sanitary District, who will discuss business opportunities with this important agency and a presentation on VDOT's Hampton Roads Transportation Accountability Commission (HRTAC) addressing mega projects in Hampton Roads.

Leisure abounds at this distinctive riverside resort that's unlike any other property in the region. Plunge into water sports at the Kingsmill marina, where you can pick up paddle boards, sea cycles, kayaks and fishing poles. Hit their walking and biking trails, and connect with the resort's beautiful surroundings. Kids of all ages can enjoy tennis, golf, a playground, game room, and Kingsmill Kid's Camp. Just a few more of the amenities are:

- Complimentary shuttle service is available around the resort and to popular area attractions, including Busch Gardens, Water Country USA and Colonial Williamsburg
- WiFi available throughout the resort
- River Pool complex with lazy river, and indoor and outdoor pools, and fitness center

All these activities are packed into three fun-filled, informative days. Be sure to contact the Kingsmill Resort today at 1-800-832-5665. Our discount rate starting at $199 per night expires June 1st or until the room block is exhausted.

■■■